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**STATE COMMITTEE OF THE U S S R  
FOR INVENTIONS AND DISCOVERIES**

4 (51) A 61 B 17/58

## **SPECIFICATION OF INVENTION TO INVENTORS' CERTIFICATE**

- (21) 3742304/28-13
- (22) 28.05.84
- (46) 23.10.85. Bull. No. 39
- (72) A.E. Dmitriev, O.L. Zorokhovich, B.M. Klimenko, B.M. Min'ko and L.S. Rabinovich
- (71) The Order of Lenin and Order of October Revolution Moscow Sergo Ordzhonikidze Aviation Institute
- (53) 615.47:616.71-001.5-089.84(088.8)
- (56) USSR Inventors' Certificate No. 474,170; Int. Cl. A 61 B 17/18, 1972.
- (54) (57) DEVICE FOR SURGICAL TREATMENT OF INJURIES OF HIP JOINT comprising pivotally connected planks having mounted on them components for securing the pelvic bones and a component for securing the whirlbone, characterized in that, in order to provide metered relief of the hip joint load, the planks are interconnected for rotation about the common pivot comprising a spring-biased ball hinge through which extends a compressing screw provided with a nut for adjusting the effort and having a ball hinge in its middle portion.

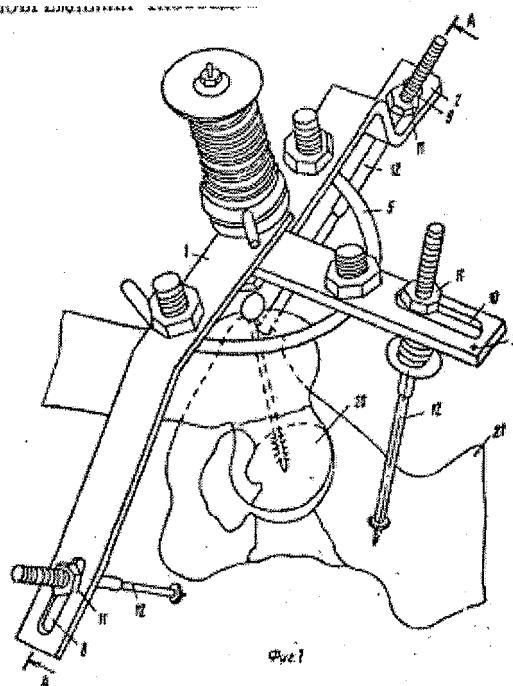


Fig. 1

The invention relates to medicinal devices, and more specifically it relates to traumatology and orthopedics.

It is an object of the invention to provide for metered relief of the load of the hip joint.

Fig. 1 is a general schematic view of the device for surgical treatment of injuries of the hip joint; and Fig. 2 is a sectional view along line A-A of Fig. 1.

The device for surgical treatment of injuries of the hip comprises planks 1 - 3 having the common axis of rotation in the form of a support 4 and fixed on a ring 5 by means of fasteners 6 and nuts 7. Set in the slots 8 - 10 of the planks 1 - 3 with the aid of nuts 11 are components for fixing the pelvic bones in the form of threaded needles 12 with thrust pads. Secured in the support 3 [sic! ??4] is an insert 13 with a concave spherical surface engaged by the convex spherical surface of a spherical journal 14 biased by a balance spring 15. The effort of the balance spring 15 is transmitted via a nut 16 and a bush 17 to the compressing screw 18 having a ball hinge 19 in its middle portion.

The device is operated as follows.

The compressing screw 18 is introduced into the whirlbone 20, and the threaded needles 12 with their thrust pads are introduced into the pelvic bones 21. The compressing screw 18 is set into the support 4 with its secured insert 13, journal 14, balance spring 15, bush 17 and the planks 1 - 3 with the ring 5 carried by the support 4 so that the threaded needles 12 should be received in the slots 8 - 10. Then the planks 1 - 3 are finally fixed on the ring 5 with the fasteners 6 and nuts 7, whereafter the threaded needles 12 are fixed in the slots 8 - 10 with the nuts 11.

The nut 16 is operated to adjust the effort applied by the device to the hip joint.

With the device thus applied, the patient can engage in active motions, with the bending and unbending (flexing) of the thigh being possible by rotation of the hinge 19, while hip adduction, abduction and rotation being possible owing to rotation of the spherical journal 14 relative to the insert 13.

A - A

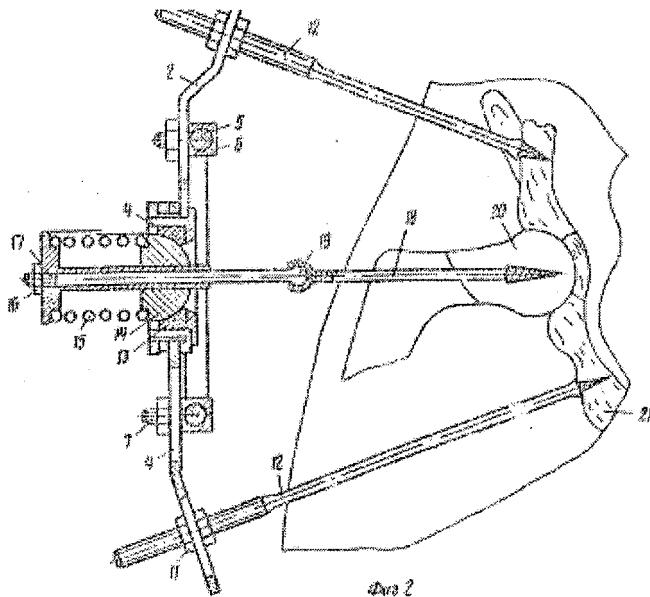


Fig. 2

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